

[illegible]

SYSTEM AND METHOD FOR COMMON INTEREST ANALYSIS AMONG MULTIPLE USERS

Klaus Hofrichter

Attorney's Docket No.: 80398.P451

(Date signed)

SYSTEM AND METHOD FOR COMMON INTEREST ANALYSIS AMONG MULTIPLE USERS

FIELD OF THE INVENTION

[0001] The system and method of the present invention relates to the customization of the operation of a device, for example, the viewing of programming on a media device.

BACKGROUND

[0002] As broadcasts become more sophisticated, information relevant to broadcasts can be communicated and used to generate program information including information relevant to the user's viewing interests. Thus, profiles may be generated for users to customize the user's viewing experience. The profile may include display-related information such as default background color and content related information, for example, annotations provided by the user for certain content, interest related, for example, genre like "science fiction" and preference related, for example, higher priority given to the science fiction channel to watch science fiction programming. If the system can accommodate a multiple user environment, each user would have his own profile, treated by the system independently.

SUMMARY OF THE INVENTION

[0003] In the system and method of the present invention, profiles that have a common interest are linked together such that when one common interest profile has an update of the common interest the other common interest profiles are notified of the update enabling the other common interest profiles to update their profiles.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] The objects, features and advantages of the present invention will be apparent to one skilled in the art from the following detailed description in which:

[0005] **Figure 1** illustrates one embodiment of a system which utilizes the teachings of the present invention.

[0006] **Figure 2** illustrates an alternate embodiment.

[0007] **Figure 3** illustrates multiple user profiles that may be contained in an implementation of the system of the present invention.

[0008] **Figure 4** is a simplified functional representation of one embodiment of the present invention.

[0009] **Figure 5** is a simplified flow diagram of one embodiment of the method of the present invention.

[0010] **Figure 6** illustrates an alternate embodiment of the present invention.

[0011] **Figure 7** is a pseudo-code illustration of an alternate embodiment of the present invention.

DETAILED DESCRIPTION

[0012] In the following description, for purposes of explanation, numerous details are set forth in order to provide a thorough understanding of the present invention. However, it will be apparent to one skilled in the art that these specific details are not required in order to practice the present invention. In other instances, well known electrical structures and circuits are shown in block diagram form in order not to obscure the present invention unnecessarily.

[0013] The system and method of the present invention will be described in the context of a satellite, cable or other type of broadcast system and the devices coupled thereto, such as the service provider's headend, the user's set top box, a broadcast receiver, the user's remote controller, a media storage device and the like. However, the system and method of the present invention should not be limited as such, and can be applied to other types of media accessed by multiple ways including other media devices including audio devices and computing devices.

[0014] The system and method of the present invention provides for a multi-user environment wherein each user has his own profile, and cross-referencing or linking is performed among profiles to provide useful feedback to the users of the profiles. The system provides a linkage among profiles with a common interest so that whenever a change or update occurs with respect to the common interest in one profile the other profiles that are linked to it will be notified of the change. In one embodiment, the user is notified via a message, for example through a coupled display device (e.g., a television monitor) or through an alternate medium, for example, the service provider's website or

through email to the user. In another embodiment, the notification causes an automatic update of the other linked profiles.

[0015] One embodiment of the system of the present invention is shown in **Figure 1**. The system includes a service provider 5 providing broadcast services to a controller 10, such as a set top box, which provides the broadcast to a display 15. The service provider 5 may be any one of a number of types of service providers including cable, satellite, as well as other broadcast services. The controller 10 which may be part of a television system or similar display apparatus 15 or part of a set top box 10. The service provider provides programs and program information to the controller 10 which generates programming and displays of program information in accordance with the teachings herein.

[0016] The system includes maintaining information, such as user profiles, for a user to customize his viewing experience. The information may include display-related information, for example default background color, content-related information, for example, annotations written by the user for certain content, interest-related information, for example genre, like science fiction and preference-related information, for example higher priority given to one channel to watch programming on that particular channel. In a multi-user environment, such as the home, housing a family of multiple viewers, each user would have his own profile or multiple profiles belonging to the same viewer. The environment may be more expansive than a particular home and can be defined a variety of ways, geographically and non-geographically related.

[0017] In one embodiment, as illustrated in **Figure 2**, the user profiles are stored in a storage device 20 such as memory. In the illustration, four profiles are maintained: user A profile 25, user B profile 30, user C profile 35 and user D profile 40. This profile information may be maintained by the service provider 5 or at the user's controller 10.

[0018] In one embodiment the controller includes that illustrated in the simplified block diagram of **Figure 3**. Controller 30 includes a processor 35, memory 40 and input-output 45. Memory 40 stores instructions which, when executed by the processor 35 perform the methods described herein. Input-output 45 enables the transfer of information regarding the profiles as described herein. In a multi-user environment, where each user has its own profile, it is desirable to find common interest among the profiles by cross-referencing them. The result from the cross-reference often provides

